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Howard C Lee* (hlee@math.ucla.edu). *Finite Algebras that Generate Congruence-Distributive Varieties*. Preliminary report.

Jónsson showed that members of a variety V have distributive congruence lattices if and only if for some n there exist $n + 1$ ternary terms satisfying certain identities, in which case we say that condition $\text{CD}(n)$ holds for V . For each $m > 0$, we construct an algebra with $m + 1$ elements whose variety satisfies $\text{CD}(4m)$ but not $\text{CD}(k)$ for $k < 4m$. For example, we construct a three-element algebra whose variety satisfies $\text{CD}(8)$ but not $\text{CD}(k)$ for $k < 8$. (Received September 22, 2005)